APPENDIX IV

LAND USE/LAND COVER	AREAS IN HUC-11 SUBWATERSHEDS (ACRES)							
	010	020	030	040	050	060	070	080
Deciduous Forest	14,165	16,281	10,317	10,557	3,387	16,761	5,014	5,185
Evergreen Forest	3,284	3,251	1,575	1,138		1,883	1,553	629
High Intensity:								
Commercial/Industrial/Transportation	13	2	102	42	11	19	0	24
High Intensity: Residential	4	4	140	10	1	8		
Low Intensity: Residential	33	6	955	135	31	88	5	1
Mixed Forest	2,747	2,671	3,364	1,752	771	2,797	1,212	967
Open Water	214	78	156	82	66	147	41	30
Other Grasses: Urban/Recreational	0	0	59	3		105	4	1
Pasture/Hay	5,296	8,496	11,911	7,069	3,643	8,087	3,251	5,128
Row Crops	4,023	5,940	7,306	4,403	1,883	5,617	2,468	3,939
Transitional	86	27	64	15	6	25	19	11
Woody Wetlands	1,475	940	3,935	287		1,832	713	2,403
Emergent Herbaceous Wetlands			2,398		575		205	87
Quarries/Strip Mines	17							
Total	**31,356**	**37,697**	**42,284**	**25,494**	**10,374**	**37,369**	**14,484**	**18,404**

LAND USE/LAND COVER	AREAS IN HUC-11 SUBWATERSHEDS (ACRES)					
	090	100	110	120	130	140
Deciduous Forest	13,059	15,860	6,633	4,936	7,664	3,975
Evergreen Forest	1,177	987	1,029	1,080	1,259	465
High Intensity:						
Commercial/Industrial/Transportation	12	112	1,376	41	103	225
High Intensity: Residential	8	9	1,199	52	0	106
Low Intensity: Residential	45	285	5,713	680	28	569
Mixed Forest	2,253	2,775	2,461	1,345	2,093	1,977
Open Water	352	644	336	141	228	223
Other Grasses: Urban/Recreational	1	1	540	4	513	107
Pasture/Hay	7,731	6,397	6,314	2,592	4,372	6,096
Row Crops	6,977	5,818	5,514	1,874	6,809	8,681
Transitional	57	53	173	2	19	45
Woody Wetlands	3,550	1,780	4,068	28	24	3,410
Emergent Herbaceous Wetlands	927	599	1,010			1,082
Quarries/Strip Mines			8			
Small Grains	75				18	155
Total	**36,224**	**35,320**	**36,375**	**12,775**	**23,129**	**27,115**

LAND USE/LAND COVER	AREAS IN HUC-11 SUBWATERSHEDS (ACRES)					
	150	160	170	180	190	200
Deciduous Forest	1,003	1,648	566	154	1,077	923
Evergreen Forest	138	143	52	15	67	89
High Intensity: Commercial/Industrial/Transportation	28	96	62	45	23	88
High Intensity: Residential		94	0	34	2	315
Low Intensity: Residential	17	412	42	131	8	655
Mixed Forest	581	1,085	520	156	558	531
Open Water	10	312	59	47	953	77
Other Grasses: Urban/Recreational		16		6		93
Pasture/Hay	3,330	11,904	4,797	4,123	6,859	4,936
Row Crops	8,005	17,629	9,748	7,507	19,369	12,821
Transitional	0	38		30	6	4
Woody Wetlands	1,655	5,568	32	10	9,825	741
Emergent Herbaceous Wetlands		473			1,098	
Quarries/Strip Mines						
Small Grains	35	156		187	1	
Bare Rocks, Sand, Clay				13		
Total	**14,802**	**39,574**	**15,878**	**12,458**	**39,847**	**21,272**

LAND USE/LAND COVER	AREAS IN HUC-11 SUBWATERSHEDS (ACRES)					
	210	220	230	240	250	260
Deciduous Forest	1,839	757	778	2,459	1,384	2,707
Evergreen Forest	68	47	57	203	154	189
High Intensity: Commercial/Industrial/Transportation	22	15	33	95	72	238
High Intensity: Residential	3		17	113		171
Low Intensity: Residential	7	7	68	251	4	382
Mixed Forest	719	207	306	1,750	768	1,229
Open Water	93	23	86	33	25	665
Other Grasses: Urban/Recreational	1		8	32	157	337
Pasture/Hay	5,523	2,605	3,954	4,964	4,132	6,679
Row Crops	23,163	13,821	16,137	9,404	5,063	22,451
Transitional	22	4	2	25	48	161
Woody Wetlands	4,166	1,186	119			3,948
Emergent Herbaceous Wetlands						
Quarries/Strip Mines						
Small Grains	350		33			
Total	**35,976**	**18,670**	**21,597**	**19,328**	**12,057**	**39,156**

Table A4-1. Land Use Distribution in South Fork Forked Deer River Watershed by HUC-11. *Data is from 1992 Multi-Resolution Land Characterization (MRLC) derived by applying a generalized Anderson Level II system to mosaics of Landsat thematic mapper images collected every five years.*

HYDROLOGIC SOIL GROUPS
GROUP A SOILS have low runoff potential and high infiltration rates even when wet. They consist chiefly of sand and gravel and are well to excessively drained. **GROUP B SOILS** have moderate infiltration rates when wet and consist chiefly of soils that are moderately deep to deep, moderately to well drained, and moderately coarse to coarse textures. **GROUP C SOILS** have low infiltration rates when wet and consist chiefly of soils having a layer that impedes downward movement of water with moderately fine to fine texture. **GROUP D SOILS** have high runoff potential, very low infiltration rates, and consist chiefly of clay soils.

Table A4-2. Hydrologic Soil Groups in Tennessee as Described in WCS.

STATION	HUC-11	NAME	AREA (SQ MILES)	PERIOD OF OBSERVATIONS	FLOW (CFS)		
					Min	Max	Mean
07027500	08010205110	SFFD River	495.0	07/01/29-09/06/91	70.0	35,200.0	726.0
07027800	08010205260	SFFD River	932.0	10/01/68-12/31/81	145.0	33,400.0	1,389.0
07028100	08010205260	SFFD River	1,019.0	01/01/55-09/30/84	94.0	34,000.0	1,407.0
07028000	08010205260	SFFD River	1,003.0	07/01/29-09/30/57	102.0	43,900.0	1,403.0

Table A4-3. Historical USGS Streamflow Data Summary Based on Mean Daily Flows in South Fork Forked Deer River Watershed. *Min, absolute minimum flow for period of record.*

PARAMETER ID	PARAMETER NAME
00010	Water Temperature (Degrees Centigrade)
00061	Flow, Stream, Instantaneous (cfs)
00065	Stream Stage (Feet)
00080	Color (Platinum-Cobalt Units)
00094	Specific Conductance, Field (µmhos/cm @ 25^{o} C)
00095	Specific Conductance, Field (µmhos/cm @ 25^{o} C)
00299	Oxygen, Dissolved, Analysis by Probe (mg/L)
00300	Oxygen, Dissolved (mg/L)
00310	BOD 5 Day @ 20^{o} C (mg/L)
00335	COD (Low Level) in .025 N $K_2Cr_2O_7$ (mg/L)
00340	COD (High Level) in .025 N $K_2Cr_2O_7$ (mg/L)
00400	pH (Standard Units)
00410	Alkalinity, Total (mg/L as $CaCO_3$)
00431	Alkalinity, Total Field (mg/L as $CaCO_3$)
00515	Residue, Total Filtrable (mg/L)
00530	Residue, Total Nonfiltrable (mg/L)
00605	Nitrogen, Organic, Total (mg/L as N)
00608	Nitrogen Ammonia , Dissolved (mg/L as N)
00610	Nitrogen Ammonia , Total (mg/L as N)
00613	Nitrite Nitrogen, Dissolved (mg/L as N)
00619	Ammonia, Unionized (Calculated From Temp-pH-NH_4; mg/L)
00620	Nitrate Nitrogen, Total (mg/L as N)
00623	Nitrogen, Kjeldahl, Dissolved (mg/L as N)
00625	Nitrogen, Kjeldahl, Total (mg/L as N)
00630	Nitrite Plus Nitrate, Total (1 Determination mg/L as N)
00631	Nitrite Plus Nitrate, Dissolved (1 Determination mg/L as N)
00665	Phosphorus, Total (mg/L as P)
00666	Phosphorus, Dissolved (mg/L as P)
00671	Phosphorus, Dissolved Orthophosphate (mg/L as P)
00680	Carbon, Total Organic (mg/L as C)
00900	Hardness, Total (mg/L as $CaCO_3$)
00915	Calcium, Dissolved (mg/L as Ca)
00916	Calcium, Total (mg/L as Ca)
00925	Magnesium, Dissolved (mg/L as Mg)
00927	Magnesium, Total (mg/L as Mg)
00929	Sodium, Total (mg/L as Na)
00930	Sodium, Dissolved (mg/L as Na)
00935	Potassium, Dissolved (mg/L as K)
00937	Potassium, Total (mg/L as K)
00940	Chloride, Total In Water (mg/L)
00941	Chloride, Dissolved in Water (mg/L)
00945	Sulfate, Total (mg/L as SO_4)
00946	Sulfate, Dissolved (mg/L as SO_4)
00950	Fluoride, Dissolved (mg/L as F)
00955	Silica, Dissolved (mg/L as SiO_2)
01002	Arsenic, Total (µg/L as As)
01007	Barium, Total (µg/L as Ba)
01025	Cadmium, Dissolved (µg/L as Cd)
01027	Cadmium, Total (µg/L as Cd)
01034	Chromium, Total (µg/L as Cr)
01040	Copper, Dissolved (µg/L as Cu)
01042	Copper, Total (µg/L as Cu)
01045	Iron, Total (µg/L as Fe)

01046	Iron, Dissolved (µg/L as Fe)
01049	Lead, Dissolved (µg/L as Pb)
01051	Lead, Total (µg/L as Pb)
01065	Nickel, Dissolved (µg/L as Ni)
01067	Nickel, Total (µg/L as Ni)
01075	Silver Dissolved (µg/L as Ag)
01077	Silver Total (µg/L as Ag)
01090	Zinc, Dissolved (µg/L as Zn)
01092	Zinc, Total (µg/L as Zn)
01105	Aluminum, Total (µl as Al)
01106	Aluminum, Dissolved (µl as Al)
01147	Selenium, Total (µl as Se)
31616	Fecal Coliform (Membrane Filter, M-FC Broth at 44.5^{o} C)
31613	Fecal Coliform (Membrane Filter, M-FC Agar at 44.5^{o} C, 24 h)
31625	Fecal Coliform (Membrane Filter, M-FC, 0.7 UM)
31673	Fecal Streptococci, (Membrane Filter, KF Agar, at 35^{o}C, 48h)
39086	Alkalinity, Water, Dissolved, Field Titration (mg/l as $CaCO_3$)
70300	Residue, Total Filtable (Dried at 180^{o}C, as mg/L)
70507	Phosphorus, in Total Orthophosphate (mg/L as P)
71845	Nitrogen, Ammonia, Total (mg/L as NH_4)
71900	Mercury, Total (µg/L as Hg)
80154	Suspended Sediment (Evaporation at 110^{o}C, as mg/L)
82078	Turbitity, Field (as Nephelometric Turbidity Units, NTU)
82079	Turbitity, Lab (as Nephelometric Turbidity Units, NTU)

Table A4-4. Water Quality Parameters and Codes.

PARAMETER ID	SUBWATERSHED			
	060	100	160	260
00010	a	b		d,e
00061		b		
00080		b		
00094	a	b		d,e
00095	a			
00300	a	b		d,e
00310				d,e
00400	a	b		d,e
00410	a	b		d,e
00515		b		d
00530	a	b		d,e
00610	a	b	c	d,e
00619	a	b		d,e
00630	a	b	c	d,e
00665	a	b	c	d,e
00900	a	b		d,e
00940		b		
01002	a	b		d,e
01027	a	b		d,e
01034	a	b		d,e
01042	a	b		d,e
01045		b		
01051	a	b		d,e
01067	a	b		d,e
01092	a	b		d,e
31616	a	b		d,e
71900	a	b		d,e

Table A4-5. Water Quality Parameters Monitored at STORET Sites in the South Fork Forked Deer River Watershed.

CODE	STATION	ALIAS	AGENCY	LOCATION
a	002472	SFFDE062.0MN	TDEC	South Fork Forked Deer River @ RM 62.0
b	ECO65e08		TDEC	Harris Creek @ RM 2.19
c	002487	SFFDE043.2MN	TDEC	South Fork Forked Deer River @ RM 43.2
d	SFKFKDEER019.1	SFFDE019.1LE	TDEC	South Fork Forked Deer River @ Hwy 88
e	002510	SFFDE007.2LE	TDEC	South Fork Forked Deer River @RM 7.5

Table A4-6. Water Quality Monitoring STORET Stations in the South Fork Forked Deer River Watershed. *TDEC, Tennessee Department of Environment and Conservation.*

FACILITY NUMBER	FACILITY NAME	SIC	SIC NAME	MADI	RECEIVING WATER	HUC-11
TN0026026	Henderson-East Lagoon	4952	Sewerage System	Minor	SFFD @ RM 73.2	08010205030
TN0064220	Henderson-North Lagoon	4952	Sewerage System	Minor	SFFD @ RM 67.3	08010205030
TN0064238	Henderson-South Lagoon	4952	Sewerage System	Minor	SFFD @ RM 74.9	08010205030
TN0067083	Pinson US STP	4952	Sewerage System	Minor	SFFD @ RM 65.7	08010205060
TN0023272	Beech Bluff School STP	4952	Sewerage System	Minor	RM 1.7 of trib to North Fork of SFFD @ RM 8.1	08010205090
TN0068390	Van de Kamp, Inc.	2038	Frozen Specialties	Minor	RM 1.4 of trib to Jones Creek @ RM 2.7 to SFFD River @ RM 56.7	08010205110
TN0024813	Jackson UD STP	4952	Sewerage System	Major	SFFD @ RM 50.8 and @ RM 51.1	08010205110
TN0000264	Consolidated Aluminum	3353	Sheet Aluminum	Major	RM 2.6 o a tributary to Anderson Branch @ RM 2.5	08010205110
TN0067563	U.S. Silica Company	5085	Industrial Supplies	Minor	RM 2.5 of trib to SFFD @ RM 51.7	08010205110
TN0057665	Miller Lumber Company	2411	Logging	Minor	RM 0.5 of trib to Sandy Creek @ RM 0.7	08010205110
TN0058017	Kelly Foods	2091	Canned/Cured Fish and Seafood	Minor	Storm Drain to Sandy Creek @ RM 0.5	08010205110
TN0023311	West Middle School STP	4952	Sewerage System	Minor	RM 0.1 of trib to Johnson Creek @ RM 5.3	08010205130
TN0056472	Denmark School	4952	Sewerage System	Minor	Cub Creek @ RM 7.8	08010205130
TN0022519	Wilhite's 76 Truck Stop	4953	Waste Treatment and Disposal	Minor	Panther Creek @ RM 6.9 and RM 0.2 of trib to Panther Creek @ RM 6.9	08010205160
TN0023230	Econolodge-Denmark	4952	Sewerage System	Minor	RM 0.6 of trib to Panther Creek @ RM 6.9	08010205160

TN0055786	Pictsweet Frozen Foods	0723	Crop Preparation	Minor	Wet Weather Conveyance to trib @ RM 2.9 to SFFD @ RM 35.8	08010205160
TN0026247	Bells Lagoon	4952	Sewerage System	Major	Old Channel SFFD	08010205170
TN0065218	Maury City WWTP	4952	Sewerage System	Minor	SFFD @ RM 27.1	08010205190
TN0041921	Dynametal Technologies	3568	Mechanical Power Transmission	Minor	Impoundment Pond to RM 2.6 of trib to Little Nixon Creek @ RM 4.1	08010205200
TN0041939	Haywood Company	2869	Other Organic	Minor	RM 0.7 of a trib to Little Nixon Creek @ RM 4.1	08010205200
TN0064301	51 Travel Center STP	4952	Sewerage System	Minor	Drain Field	08010205260
TN0057291	Halls lagoon	4952	Sewerage System	Major	SFFD @ RM 10.8	08010205260

Table A4-7. Active Permitted Point Source Facilities in the South Fork Forked Deer River Watershed. *SIC, Standard Industrial Classification; MADI, Major Discharge Indicator.*

FACILITY NUMBER	FACILITY NAME	SIC	SIC NAME	RECEIVING WATER	HUC-11
TN0072036	Memphis Stone & Gravel Co: Deadfall Road Pit	1442	Construction Sand and Gravel	Trib to Crooked Fork and Beaver Creeks	08010205040
TN0070807	U.S. Silica Company: Jackson Quarry	1442	Construction Sand and Gravel	Hicks Creek	08010205110
TN0070939	Teague Transports: Westover Sand Plant	1442	Construction Sand and Gravel	Hicks Creek	08010205110
TN0069094	Dement Construction Co: Denmark Sand Plant	1442	Construction Sand and Gravel	Hart Creek	08010205130
TN0070777	Jackson Sand: Mine #1	1442	Construction Sand and Gravel	Unnamed Drainage to SFFD	08010205140
TN0071994	McArmour Enterprises: Armour Pit	1442	Construction Sand and Gravel	Lost Creek	08010205210
TN0069108	Dement Construction Co: Parks Gravel Pit	1442	Construction Sand and Gravel	Tisdale Creek	08010205240
TN0069116	Dement Construction Co: Ford Gravel Pit	1442	Construction Sand and Gravel	Trib to Tisdale Creek	08010205240
TN0070955	Ford Construction Co: Eugene White Pit	1442	Construction Sand and Gravel	Tisdale Creek	08010205240
TN0071901	White Sand and Gravel: Sand and Gravel Mine	1442	Construction Sand and Gravel	Tisdale Creek	08010205240

Table A4-8. Active Mining Sites in the South Fork Forked Deer River Watershed. *SIC, Standard Industrial Classification.*

LOG NUMBER	COUNTY	DESCRIPTION	WATERBODY	HUC-11
98.130	McNairy	Rip-Rap	Huggins Creek @ RM2.68	08010205010
98.623	Madison	Culveret Extension	Turk Creek @ 0.84	08010205060
98.624	Madison	Road Crossing	Turk Creek @ 0.86	08010205060
99.522C	Madison	Debris Removal	SFFD @ RM 1.85	08010205060
99.522D	Madison	Debris Removal	Turk Creek @ RM 0.84	08010205060
99.522H	Madison	Debris Removal	Hunters Creek @ RM 3.94	08010205060
99.358	Madison	Bridge and Approaches	SFFD	08010205090
99.522J	Madison	Debris Removal	Brown Creek @ RM 4.41	08010205090
99.380	Madison	Bank Stabilization	Central Creek in Jackson	08010205110
99.403	Madison	Debris removal	Sandy Creek us/ U.S. 45/70	08010205110
99.522I	Madison	Debris Removal	Anderson Branch @ RM 0.45	08010205110
99.522R	Madison	Debris Removal	Anderson Branch @ RM 18.0	08010205110
99.375	Madison	Wetland Fill: 1.06 Acres	Meridian Creek	08010205120
99.522E	Madison	Debris Removal	Meridian Creek @ RM 4.70	08010205120
99.522K	Madison	Debris Removal	Cub Creek @ RM 8.56	08010205140
99.522S	Madison	Debris Removal	Unnamed Trib @ RM 1.31	08010205140
99.522T	Madison	Debris Removal	Unnamed Trib @ RM 5.06	08010205140
99.522U	Madison	Debris Removal	SFFD @ RM 7.19	08010205140
99.522V	Madison	Debris Removal	Adair Branch @ RM 3.06	08010205140
99.522W	Madison	Debris Removal	Unnamed Trib @ RM 6.51	08010205140
99.021	Madison	Bridge and Approaches	Cypress Creek @ RM 0.37	08010205150
99.022	Madison	Bridge and Approaches	Cypress Creek @ RM 0.37	08010205150
99.268	Madison	Bridge Scour Repair	Cypress Creek @ RM 3.29	08010205150
98.268	Haywood	Bridge Scour Repair	Mud Creek @ RM 21.59	08010205170
98.267	Haywood	Bridge Scour Repair	Jacock's Creek @ SR 76	08010205190
99.267	Haywood	Bridge Scour Repair	Trib to Pond Crk @ RM 2.61	08010205210
98.219	Lauderdale	Bridge Scour Repair	Sumrow Creek @ RM 19.21	08010205240
99.049	Lauderdale	Bridge Scour Repair	Tisdale Creek @ RM 14.55	08010205240
99.288	Lauderdale	Bridge Scour Repair	Unnamed Trib to Sumrow Crk	08010205240

Table A4-9. Individual ARAP Permits Issued January 1994 Through June 2000 in South Fork Forked Deer River Watershed.

PERMIT #	COUNTY	DATE ISSUED	SITE	IMPACTED ACRES	IMPACTED WATER	MITIGATION	HUC-11
95.494	McNairy	10/09/95	US 45	0.75	Huggins Crk	On-Site	08010205010
	Chester		SR 22A	0.43	Jack's Creek	On-Site	08010205020
95.026	Chester	05/05/95	SR 5	7.95	Sugar Creek	On-Site	08010205040
95.651	McNairy/Chester	12/05/95	SR 5	7.95	Sugar Creek	On-Site	08010205040
	Madison	08/29/95	SR 5	3.0	SFFD	On-Site	08010205110
	Madison	07/05/90	Riverside Dr.	1.0	SFFD	On-Site	08010205110
94.013	Madison	09/01/94	SFFD @ RM 94	27.5	SFFD	Off-Site	08010205140
99.021	Madison	05/10/99	St. Johns Road	0.091	Cypress Crk	Off-Site	08010205150

Table A4-10. Individual ARAP Permits Issued for Impacting Wetlands in South Fork Forked Deer River Watershed.

PERMIT #	COUNTY	IMPACTED ACREAGE	MITIGATION ACREAGE	MITIGATION	HUC-11
95.494	McNairy	0.75	3.0	On-Site	08010205101
95.651	McNairy/Chester	7.95	17.0	On-Site	08010205040
	Madison	3.0	3.0		08010205110
	Madison	1.0	1.0		08010205110
94.013	Madison	27.5	55.0	Off-Site	08010205140

Table A4-11. Individual ARAP Permits Issued for Mitigating Wetlands in South Fork Forked Deer River Watershed.